

## Microwave-assisted surface-initiated redox polymerization of acrylamide with functionalized graphene oxide for aqueous lubricant additive

Arvind Kumar, Babita Behera and Siddharth S. Ray\*

\* CSIR-Indian Institute of Petroleum, Mohkampur, Dehradun, 248005, India. Fax: +91-135-2660202; Tel: +91-135-2525771; E-mail: [ssray@iip.res.in](mailto:ssray@iip.res.in)

**Table S1: Optimization of Ce(IV) ions concentration.**

(Acrylamide= 5 g; 25 mg FGO dispersed in 50 ml water; Temperature= 50 0C; Time=10 min)

| Ce (IV) ions Conc ( $\times 10^{-3}$ mol/l) | FGO-PAM yield (g) |
|---|-------------------|
| 0.122                                       | 0.05              |
| 0.245                                       | 0.05              |
| 0.490                                       | 0.33              |
| 0.980                                       | 1.0               |
| 1.96  | 1.81              |
| 3.92  | 1.62              |